

## **REMARKS**

### **I. Status of the Application**

In view of the above amendments and the following remarks, reconsideration of the rejections set forth in the Office Action of September 20, 2010 is respectfully requested.

By this amendment, claims 1-5, 15, 21, and 23 have been amended, claim 22 has been cancelled without prejudice or disclaimer to the subject matter contained therein, and claim 24 has been added. Claims 1-10, 15-17, 21, 23, and 24 are now pending in the application. No new matter has been added by these amendments.

### **II. Prior Art Rejections**

Currently, claims 1-10, 16-17, and 21 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Lippe et al. (US 6,171,276), claim 15 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lippe et al. in view of Hogan (US 6,406,460), and claims 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lippe et al.

Claim 1 requires an automatic administration instrument for medical use for injecting a drug solution filled in a syringe, said automatic administration instrument comprising: a body for housing the syringe and an injection needle; a first motor for driving the syringe within said body in a direction toward the tip of the injection needle such that the injection needle protrudes from said body; a second motor for operating the syringe to administer the drug solution; a switch provided on said body, said switch being operated by pressing a part of the exterior of said body against a body region of a patient to which the drug solution is to be administered, wherein said switch activates said first motor such that the injection needle protrudes from said body to

perform needle insertion into said body region, and thereafter activates said second motor to administer the drug solution.

In rejecting claim 1 on page 3 of the Office Action, and in responding the Applicants' arguments on page 9 of the Office Action, the Examiner asserts that column 15, lines 4-17 of the Lippe et al. reference disclose that "an electrical motor can be used to control penetration. It is understood that this motor that controls penetration would drive the syringe in the direction toward the tip of the injection needle." The portion of the Lippe et al. reference cited by the Examiner discloses as follows: "The electromechanical device can be any device that can be affected by electrical means to give a mechanical force. The electromechanical device can be a relay or solenoid type device or preferably an electric motor. It is preferred that at least the pump mechanism is controlled or affected by the electromechanical means. With preference also other functions are controllable by electric means, penetration means with possible return means. For simplicity these additional capabilities may not need electromechanical driving means of their own but may be driven by mechanical means, such as springs, cocked manually or by simple electromechanical means. For highest flexibility, though, at least electromechanical release means e.g. solenoids, and possibly separate electrical motor means, should be present for such additional functions." (See column 15, lines 4-17 of Lippe et al.)

It is respectfully submitted that the above disclosure of Lippe et al. is not sufficient to support a rejection of claim 1. In particular, the language "With preference also other functions are controllable by electric means, penetration means with possible return means" is unclear and grammatically incorrect to the point of being incomprehensible. It is not clear whether the penetration means is controlled by electric means, as the above-quoted sentence could be interpreted to mean "other functions are controllable by electric means, and the penetration

means possibly has return means,” or the like. Moreover, it appears that the above-quoted sentence is the only portion of the disclosure of Lippe et al. in which the term “penetration means” is used, and thus it is unclear what structure is referred to. Even if it was clear which structure constitutes the penetration means and it was also clear that the penetration means was controlled by electric means, it is unclear what such control would involve. Accordingly, it is respectfully submitted that column 15, lines 4-17 of the Lippe et al. reference does not disclose, as required by claim 1, a first motor for driving the syringe within said body in a direction toward the tip of the injection needle such that the injection needle protrudes from said body.

Additionally, it is noted the claim 1 recites that the switch activates the first motor such that the injection needle protrudes from the body to perform needle insertion into the body region, and thereafter activates the second motor to administer the drug solution. In other words, operation of the same switch activates the first motor and thereafter activates the second motor. As discussed above, Lippe et al. does not disclose a first motor for driving the syringe, and thus the disclosure of Lippe et al. certainly does not disclose a first motor and a second motor which are activated by the same switch. Because Lippe et al. does not disclose a switch which activates said first motor such that the injection needle protrudes from said body to perform needle insertion into said body region and thereafter activates said second motor to administer the drug solution, Lippe et al. cannot meet the requirements of claim 1.

Further, new independent claim 24 recites an automatic administration instrument for medical use for injecting a drug solution filled in a syringe, said automatic administration instrument comprising: a body for housing the syringe and an injection needle; a first motor for driving the syringe within said body in a first direction and in a second direction opposite to the first direction, the first direction being toward the tip of the injection needle such that the

injection needle protrudes from said body, a second motor for operating the syringe to administer the drug solution; a switch provided on said body, said switch being operated by pressing a part of an exterior of said body against a body region of a patient to which the drug solution is to be administered, wherein said switch activates said first motor to drive the syringe in the first direction such that the injection needle protrudes from said body to perform needle insertion into the body region while said part of said exterior of said body is pressed against the body region of the patient, and thereafter activates said second motor to administer the drug solution, and after the drug is administered reactivates said first motor to drive the syringe in the second direction such that the protruding injection needle is retracted into said body while said part of said exterior of said body is pressed against the body region of the patient.

As recited in claim 24, the present invention has a single switch which is operated to sequentially activate the first motor to insert the needle, activate the second motor to administer the drug solution, and reactivate the first motor to retract the needle all while the exterior of the body is pressed against the patient. This configuration is not disclosed in Lippe et al. As discussed above, Lippe et al. does not even disclose first and second motors as recited in claims 1 and 24, nor does Lippe et al. disclose a switch operable to activate both motors, and thus Lippe et al. does not disclose the sequential alternating activation recited in claim 24.

Further, it appears as though there would have been no reason to modify any of the prior art of record to yield a configuration which would meet the requirements of claims 1 and 24. It is thus submitted that the invention of the present application, as defined in claims 1 and 24, is not anticipated nor rendered obvious by the prior art, and yields significant advantages over the prior art. Allowance is respectfully requested.

Claims 2-10, 15-17, 21 and 23 depend, directly or indirectly, from claim 24 and are thus allowable for at least the reasons set forth above in support of claim 24.

In view of the foregoing amendments and remarks, inasmuch as all of the outstanding issues have been addressed, it is respectfully submitted that the present application is now in condition for allowance, and action to such effect is earnestly solicited. Should any issues remain after consideration of the response, however, the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

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